THE CITY OF SAN DIEGO

MANAGER'S REPORT

DATE ISSUED: February 4, 2004 REPORT NO. 04-028

ATTENTION: Honorable Mayor and City Council
Docket of February 9, 2004

SUBJECT: La Jolla Public Facilities Financing Plan Amendment, and
Bird Rock Area Traffic Management Plan

SUMMARY

Issues – Should the City Council: 1) approve in concept the proposed Traffic Management Plan for the Bird Rock area of La Jolla; 2) amend the La Jolla Public Facilities Financing Plan to include the Bird Rock Traffic Management Plan at an estimated cost of $3,792,000; 3) approve a Public Facilities Financing Plan Amendment for FY 2004 for the La Jolla community; 4) rescind the existing Development Impact Fees; 5) approve the establishment of new Development Impact Fees for all properties within the La Jolla community; 6) authorize a $250,000 increase in the Fiscal year 2004 Capital Improvement Program budget in CIP 52-717.0 Bird Rock Coastal Traffic Flow Improvements in Fund 79514, La Jolla DIF ; 7) authorize expenditure not to exceed $250,000 from CIP 52-717.0 for project design; and, 8) authorize the City Manager to negotiate and execute a sole source contract as described in Council Policy 300-7, with Project Design Consultants for the purpose of providing engineering services for Bird Rock Coastal Traffic Flow Improvements project (CIP 52-717.0) in the amount not to exceed $249,940?

Manager's Recommendations – 1) Approve in concept the Traffic Management Plan; 2) amend the La Jolla Public Facilities Financing Plan to include the Bird Rock Traffic Management Plan at an estimated cost of $3,792,000; 3) approve the La Jolla Public Facilities Financing Plan Amendment; 4) rescind the existing Development Impact Fees; 5) establish new Development Impact Fees for all properties within the La Jolla community; 6) authorize a $250,000 increase in the

Fiscal year 2004 Capital Improvement Program budget in CIP 52-717.0 Bird Rock Coastal Traffic Flow Improvement in Fund 79514, La Jolla DIF; 7) authorize the expenditure not to exceed $250,000 from CIP 52-717.0 for project design; and, 8) authorize the City Manager to negotiate and execute a sole source contract with Project Design Consultants for the purpose of providing engineering services for Bird Rock Coastal Traffic Flow Improvements project (CIP 52-717.0), in the amount not to exceed $249,940.

Community Planning Group Recommendation – The proposed Traffic Management Plan has been reviewed and approved by the La Jolla Community Planning Association and the Bird Rock Community Council.

Other Recommendations – 1) The proposed Traffic Management Plan has been reviewed and approved by the La Jolla Town Council and Promote La Jolla; and 2) Subcommittee for the Removal of Access Barriers (SCRAB) voted not to approve the roundabouts on the grounds that they thought they are not safe for people with disabilities.

Environmental Impact – Fiscal approval is exempt from CEQA pursuant to the General Rule; State CEQA Guidelines, Sections 15061(B)(3). The Bird Rock area traffic management project would require environmental review which will be conducted at the design stage.

Fiscal Impact – Adoption of this financing plan amendment will continue to provide new development's share of funding for the required public facilities. Total project costs are estimated at $3,792,000 which includes $250,000 for design. There is currently about $60,000 available in the CIP 52-717.0 account. There are no identified funds for the remaining $3,482,000.

BACKGROUND

Public Facilities Financing Plan

Development Impact Fees (DIF) were established in 1987 by the City Council to mitigate the impact of new development in urbanized communities. Fees were based on the facility needs of each community. This amendment adds a project to the current La Jolla Public Facilities Financing Plan adopted June 4, 2002.

Traffic Management Plan

During January and February of 2000, the Bird Rock Community Council surveyed residents regarding traffic problems in Bird Rock. The residents identified crossing La Jolla Boulevard and lack of traffic calming measures to be major problems. In April of 2001, based on concerns expressed by the Bird Rock Community Council and area residents regarding La Jolla Boulevard's traffic and safety, Councilmember Peters hosted three town hall meetings to discuss the subject. Following the meetings, staff prepared a traffic study for La Jolla Boulevard and the two streets parallel to it (Chelsea Avenue on the west and La Jolla Hermosa on the east). Some residents raised concern about the effects of proposed improvements on other area residential streets.

In March 2002, the City retained Dan Burden of *Walkable Communities*, a non-profit nationally recognized traffic calming consultant, to assist with traffic solutions for Bird Rock. After conducting a series of hands-on community workshops, consensus was reached on a traffic calming plan that embraces all of Bird Rock. In September 2002, a task force was appointed to finalize and implement the traffic calming plan that *Walkable Communities* and workshop participants had initiated. In the next 16 months, the task force conducted open bi-weekly meetings, discussing and refining the proposed traffic plan. City staff assisted with technical issues, as appropriate, throughout the process. In addition, two widely advertised community-wide meetings were convened at critical project milestones to further discuss and refine the plan with the area residents.

The task force, with assistance from City staff, has been able to finalize the plan and obtain all necessary community group approvals. This City Manager report addresses the recommendations of the task force, as well as information with regard to the La Jolla Public Facilities Financing amendment and to retain Project Design Consultants to design the subject project for the City.

DISCUSSION

La Jolla Boulevard is the primary route for vehicular access to the La Jolla community from the south. This roadway currently has four traffic lanes (two in each direction), south of Camino de la Costa, and two lanes (one in each direction), north of Camino de la Costa. In Bird Rock, between Camino de la Costa and Sea Ridge Drive, La Jolla Boulevard is 68 feet wide and has an average daily traffic volume of approximately 22,000 vehicles. The 85 percentile of speed is between 38 and 42 MPH. La Jolla Boulevard is connected to a network of residential and collector streets in the Bird Rock area. The high speed of traffic and the width of La Jolla Boulevard are sources of safety concerns and have made pedestrian crossing very difficult.

Other concerns that have been expressed by area residents and businesses include cut-through traffic and speeding on area residential streets, peak hour congestion at Bird Rock Elementary School, and the aesthetic condition and financial stagnation of the area businesses along the boulevard. A new source of concern is the development of Seahaus and other condominium projects along La Jolla Boulevard.

Public Facilities Financing Plan

The La Jolla Public Facilities Financing Plan is discussed in depth in Attachment 1.

The Proposed Traffic Management Plan

The Bird Rock Traffic Management Plan, shown in Attachment 2 (see Exhibits 2-1 and 2-2), is a comprehensive plan that includes all of the Bird Rock area streets and intersections. The plan includes five modern roundabouts on La Jolla Boulevard at Colima Street, Midway Street, Forward Street, Bird Rock Street, and Camino de la Costa.

Also included on La Jolla Boulevard is a raised landscaped median and diagonal parking on the west side of the street between Sea Ridge Drive and Camino de la Costa.

Roundabouts are needed to allow La Jolla Boulevard to operate with two traffic lanes (one in each direction) so the pavement width for pedestrian crossings can be reduced. The reduced number of traffic lanes (from four to two) would also allow for installation of diagonal parking on the west side of La Jolla Boulevard and installation of a raised landscaped median.

Geometric features inherent in the design of modern roundabouts reduce vehicular speed to about 25 MPH. As reported by the Federal Highway Administration, where constructed, roundabouts have resulted in 90 percent reduction in fatalities, 76 percent reduction in injury crashes, and 30-40 percent reduction in pedestrian accidents. Roundabouts also provide up to 50 percent increase in traffic capacity. Through proper design, roundabouts can easily accommodate emergency and large sized vehicles. Additional information about roundabouts and their benefits are included in Attachment 3.

In addition to improvements on La Jolla Boulevard, the plan includes mini roundabouts at three residential intersections: La Jolla Hermosa Street/Forward Street; La Jolla Hermosa Street/Colima Street; and Chelsea Avenue/Sea Ridge Drive. The plan also includes more than 20 other traffic calming treatments, most of which are to be constructed before the roundabouts are built. These traffic calming measures would make traffic diversion from La Jolla Boulevard to residential streets infeasible.

The roundabouts on La Jolla Boulevard at Colima Street, and at Midway Street, along with the associated improvement are development conditions of the Seahaus condominium project. If these two roundabouts are constructed before the other three, an interim design would be implemented until all five roundabouts on La Jolla Boulevard are constructed (see Attachment 4).

Accessibility Features

The proposed traffic management plan has been a project in the making for over two and a half years by the community and two task forces. The goal has been to develop a plan that is both practical and acceptable to the community. This project has been reviewed by City staff and has received near unanimous approval from all four community groups in La Jolla.

The roundabouts constitute an integral part of the traffic management plan. They provide many benefits and are needed to:

- Reduce speed to about 25 MPH,
- Reduce the number of traffic lanes from 4 to 2 on La Jolla Boulevard,

- Reduce pedestrian exposure to traffic by reducing pedestrian crossing distance from the present 68 feet on La Jolla Boulevard to 14 feet in each direction and a 10 foot median,
- Substantially reduce fatality and injury crashes,
- Substantially reduce pedestrian accidents and improve safety for all pedestrians, and
- Allow for installation of a raised landscaped median and diagonal parking.

The proposed roundabout design was modified and it now includes auditory cues to assist pedestrians who are blind in their crossing. These modifications were the culmination of the efforts of a joint staff-SCRAB (Subcommittee for the Removal of Access Barriers). The modifications include, to the extent practical, pedestrian features such as rumble strips, textured medians crossings, low profile landscaping around roundabout perimeters, guide strips, bar tiles, "YIELD TO PEDESTRAINS" signs, and in-pavement flashers. The proposed design features to better accommodate people with disabilities are discussed in detail in Attachment 5.

Sole Source Contract with Project Design Consultants

There is a need for the sole source selection of Project Design Consultants (PDC), to design the Bird Rock Traffic Management Plan. Due to work of same kind nearby, previous roundabout experience, and cost savings to the City; PDC is uniquely qualified to expeditiously design the project. Such expeditious design will help with better coordination with the sewer project currently underway on La Jolla Boulevard. It will also help with coordinating the design and construction of the two roundabouts currently underway by Seahaus condominium project at the south end of the project.

The City has and continues to receive complaints from citizens regarding traffic safety in Bird Rock area. These citizens complain about speeding and cut-through traffic on residential streets, speeding on La Jolla Boulevard, and difficulty with crossing La Jolla Boulevard.

The proposed traffic management plan includes five major roundabouts on La Jolla Boulevard and three minor roundabouts on residential streets. Roundabouts are new in the region and their design requires specialty and experience. PDC is currently designing two of the five roundabouts on La Jolla Boulevard (at Colima and Midway Streets), that are conditions of development for the Seahaus condominium project. PDC has also done previous roundabout design.

The sewer project currently under construction on La Jolla Boulevard and other Bird Rock area streets will be completed within the next few months. Completion of the sewer project requires resurfacing these streets, including milling and new pavement.

If the roundabout design can be done in an expeditious manner, then it may be possible to coordinate the construction of both projects. If we cannot proceed with expeditious design of the roundabouts, the City may incur additional costs to repave the street again.

The lack of coordination in timing may also necessitate disturbance of the newly installed pavement. The City Manager, by signing this Manager's Report, certifies the sole source of the consultant.

ALTERNATIVES

Do not approve the proposed Financing Plan Amendment and do not establish new Development Impact Fee Amendment. This is not recommended because the new fees will ensure that new development continues to contribute its fair share for facilities identified in the community plan. In the absence of these fees, alternative funding sources would have to be identified to fund new development's share of the identified facilities.

Do not approve the proposed Traffic Management Plan. The La Jolla Boulevard's safety concerns, Bird Rock Elementary School's safety concerns, cut through traffic and speeding on Bird Rock's residential streets, and aesthetic and stagnation conditions of the area businesses along La Jolla Boulevard will remain.

Respectfully submitted,

S. Gail Goldberg, AICP
Planning Director

Approved: P. Lamont Ewell
Assistant City Manager

EWELL/SP

Attachments:
1. La Jolla Public Facilities Financing Plan
2. Proposed Bird Rock Area Traffic Management Plan
3. Roundabout Description and Benefits
4. Interim Project
5. Disability Access Features

Public Facilities Financing Plan

The La Jolla Public Facilities Financing Plan Amendment adds an additional project (T13) to the list of public facilities that will be needed for the La Jolla Community as it develops according to the community plan. Since La Jolla is an urbanized community, most of the community facilities and infrastructure are already in place.

The proposed fees reflect the current costs of the facilities identified in the La Jolla Community Plan and are necessary to maintain existing levels of service in the community.

A summary of the proposed impact fees for La Jolla is as follows:

Residential Units		
Transportation	$784	per unit
Park & Recreation	3569	per unit
Library	293	per unit
Fire	148	per unit
TOTAL FEE	$4794	per unit
Commercial and Industrial		
Transportation	$171	per trip
Fire	$148	per 1,000 square feet

The total impact fee for residential development will increase from $4689 to $4794 per dwelling unit, due to the adjusted costs for transportation facilities. The estimated cost for transportation facilities has increased from $39,571,111 to $43,363,111, resulting in a fee increase from $156 to $171 per trip. This increase is a result of the addition of the Bird Rock Coastal Traffic Flow Improvements project, CIP 52-717.0. The estimated cost for park facilities remains the same. The library fee remains the same. The estimated cost for fire facilities remains the same.

Projected costs for all projects are $113,008,898. Eligible projects in the amount of $102,433,898 will serve as the basis for the development impact fees, which will be collected at the time building permits are issued. Since these costs are for projects which will benefit both the existing community and future development, costs will be shared and new development is only expected to provide their pro-rata share for DIF eligible projects. Those portions of project costs not funded by new development through impact fees will need to be identified by future City Council actions in conjunction with the adoption of Annual Capital Improvements Program Budgets.

Exhibit 1-1

La Jolla

Public Facilities Financing Plan

Fiscal Year 2002

THE CITY OF SAN DIEGO

June 2002
Planning Department
Facilities Financing

AMENDED FEBRUARY 9, 2004

Monies collected are placed in City interest-accruing funds, to be used only for capital improvements in the La Jolla Community.

The La Jolla Community Plan area is almost fully developed. Since the community is near build out, the fees will provide only a small portion of the financing needed for the facilities. Thus, the majority of the required public improvements will have to be provided through special funding mechanisms other than Development Impact Fees.

Distribution of Project Costs and Fee Determination

Development of the actual DIF to be imposed is based on the extent or degree to which each type of development generates a demand for, or receives benefit from the various existing public facilities. For example, all development generates vehicular traffic and thus, on an equitable basis, should share in the cost of transportation projects.

Development Impact Fees were determined for the various categories of needed public facilities on the basis of total amount of development at community plan build-out and on the basis of additional public facilities needed at community plan build-out. The impact fee base includes all project needs except those identified as subdivider funded. The fees also include a 5% charge to cover City administrative costs.

Transportation

There is a clear relationship between the use of transportation facilities and the generation of vehicular trips based upon land use. In the report "San Diego Traffic Generators," authored by CALTRANS and SANDAG, the traffic generated by various classes of use is detailed. This report summarizes data collected at major regional traffic generators as well as neighborhood and local traffic generators in the San Diego area. Traffic counts taken at each facility are related to various characteristics of the facility such as size, type of use, number of employees, floor area, parking spaces, or number of persons. For impact fee purposes, multi-family residential development is assumed for La Jolla (and all other urbanized communities). The residential portion of the impact fee reflects an average daily trip factor (ADT) of seven as a basis for determining the impact fee. A considerable range has been found for traffic generation in non-residential developments depending on the character and use of the property. Non-residential land uses typically generate between 100 to 900 average daily trips per acre. For non-residential development in the La Jolla Community, average daily trips were used.

Using the approved land use intensity and trip generation rates, the total number of trips at community plan build-out is estimated to be 266,596. An analysis of the DIF eligible street improvements required at community build-out (estimated costs in FY 2002 dollars) totaling $43,363,111. This amount includes $14,896,000 for a public parking structure, to be charged to commercial development only. The cost per average daily trip for transportation facilities to be paid by commercial development, including administrative costs, is $171 per trip. The cost per average daily trip for transportation

facilities to be paid by residential development, including administrative costs, is $112 per trip, resulting in a per-unit cost of $784 per dwelling unit. The fee per dwelling unit is calculated using the average daily trip rate factor of seven. These amounts will be paid by all future development.

Park and Recreation

Park and Recreation needs are based on population derived from the number of dwelling units in the community. The Park and Recreation Department has identified projects needed in the La Jolla Community at build-out. These are shown in Table 1 and in detail in Appendix A.

Allocating total park and recreation facility costs of $51,755,085 to the residential development at build-out of 15,228 units, results in an impact fee, including administrative costs, of $3,569 per unit.

Library

Library needs are based on population which is derived from the number of dwelling units estimated at build out. Therefore, only residential developments are charged development impact fee for libraries.

The existing branch library is proposed to be expanded from 10,000 square feet to approximately 25,000 square feet. The existing library parking lot will require expansion to meet current and future needs and is reflected in this plan. Allocating total library requirements only to residential property results in a library impact fee of $293 per dwelling unit. This was calculated by dividing total library requirements of $4,243,702 by 15,228 the number of residential dwelling units at build-out.

Fire Facilities

The Fire Station portion of the impact fee relates to the cost of providing fire facilities to adequately provide fire protection services to both residential and non-residential development within the community. Residential impact fees are based on an average cost per dwelling unit. The average cost per 1,000 square feet of gross building area is used to determine fees for non-residential development.

The Fire Department has identified one fire station serving the La Jolla area as needing renovation/reconstruction. One station in Pacific Beach is in need of a permanent facility and a new station is needed there to service increasing demands for fire services. Only a portion of the costs of these two stations can be fairly allocated to La Jolla. Using the total amount of development, both residential and non-residential (approximately 21,762,000 square feet), and the La Jolla proportionate share of needed fire facilities ($3,072,000), the resulting impact fee is $148 per residential dwelling unit and $148 per thousand square feet of non-residential development.

Development Impact Fee Schedule

The resulting impact fees for the La Jolla community planning area are as follows:

RESIDENTIAL PROPERTY					**COMMERCIAL/INDUSTRIAL**	
Transportation	Park& Rec	Library	Fire	Total per Residential Unit	Transportation	Fire
$ Per Residential Unit					$/Trip	1000 sq.ft. of Gross Building Area (GBA)
$784	$3,569	$293	$148	$4,794	$171	$148

Exhibit 1-2

LA JOLLA - FACILITIES SUMMARY
FISCAL YEAR 2002

PROJECT NO.	PROJECT DESCRIPTION	PAGE NO.	ESTIMATED COST	BASIS FOR D.I.F.	IDENTIFID FUNDING	FUNDING SOURCE(S)	POTENTIAL SOURCES
TRANSPORTATION PROJECTS							
T1	Ardath Road/Torrey Pines Road and La Jolla Shores Drive/Torrey Pines Road Intersection - Realign intersection.	21	$4,216,017	$4,216,017	$4,086,017	CAPOTH,DIF, CMPR.TRANS	A,B,E-K,M-O, Q-U,Y
T2	La Jolla Blvd Drainage - Replaced curbs and gutters.	22	$246,198	$246,198	$246,198	DIF, TRANS	COMPLETED
T3	Torrey Pines Road Bikeway - Provided a Class II bikeway along 2.0 miles of Torrey Pines Road.	23	$65,996	$65,996	$65,996	LTF, TRANS	COMPLETED
T4	Prospect Street Pedestrian Promenade - Realign Prospect Street	24	$1,000,000	$1,000,000	$3,422	DIF	A,B,E-K,M-O, Q-U.Y
T5	Soledad Mountain Road Median - Construct a landscaped median from Ridgegate Row to Palm Canyon Drive.	25	$465,000	$465,000	$0		A,B,E-K,M-O, Q-U.Y
T6	Girard Avenue and Torrey Pines Road-Traffic Signal Modernization	26	$43,000	$43,000	$43,000	TRANS	COMPLETED
T7	La Jolla Scenic Drive and Soledad Mountain Road - Traffic signal.	27	$179,020	$179,020	$179,020	DIF, TRANS	COMPLETED
T8	Traffic Signal Improvements/Installations.	28	$179,880	$179,880	$41,280	DIF	A,B,D-K,M-O, Q-U.Y
T9	Streets, Gutters, Curbs - Install, reconstruct and upgrade streets, gutters, and curbs.	29	$5,200,000	$5,200,000	$0		A,B,E-K,M-O, Q-U,Y,
T10	Storm Drains - Install, reconstruct, and upgrade storm drains.	30	$11,910,000	$11,910,000	$294,649	DIF	A,B,E-K,M-O, Q-U.Y
T11	Architectural Barrier Removal - Install architectural barriers at 900 locations in the community.	31	$1,170,000	$1,170,000	$0		A,B,E-K,M-O, Q-U.Y
T12	Public Parking Structure - Cost applied to commercial development only	32	$14,896,000	$14,896,000	$0		UNDER STUDY
T13	Bird Rock Coastal Traffic Flow Improvements	32B	$3,792,000	$3,792,000	$250,000	DIF	A,B,E-K,M-O,Q-U,Y
	SUBTOTAL - TRANSPORTATION PROJECTS APPLICABLE TO COMMERCIAL		**$43,363,111**	**$43,363,111**	**$5,209,582**		
	SUBTOTAL - TRANSPORTATION PROJECTS APPLICABLE TO RESIDENTIAL DEVELOPMENT		**$28,467,111**	**$28,467,111**			

Exhibit 1-2 (continued)

LA JOLLA - FACILITIES SUMMARY
FISCAL YEAR 2002

POTENTIAL PROJECT		PAGE	ESTIMATED	BASIS FOR	IDENTIFIED	FUNDING	FUNDING
LIBRARY PROJECTS							
LI	Florence Riford/La Jolla Branch Library - Provides for a 15,700 square foot expansion of the Library.	57	$4,232,000	$4,232,000	$4,232,000	PRIV	
L2	Florence Riford/La Jolla Branch Library, Parking lot expansion. Provides for additional parking at lot next to library.	58	$11,702	$11,702	$11,702	DIP	CANCELLED
	SUBTOTAL - LIBRARY PROJECTS		**$4,243,702**	**$4,243,702**	**$4,243,702**		
FIRE PROJECTS							
Fl	Fire Station #13 Ventilation Improvements - Provides for vehicle exhaust of apparatus areas and power exhaust fan systems.	59	$12,000	$12,000	$12,000	DIP	COMPLETED
F2	Fire Station #13 -Permanent Facility. Provides for a permanent facility to replace the temporary facility.	60	$2,300,000	$2,300,000	$0		A,C,E-K,M-0, Q-V,Y
F3	Fire Station #21- Provides renovation of station.	61	$200,000	$200,000	$0		
F4	Fire Station #45 (Formerly Fire Station #48). Provides for a new fire station.	62	$560,000	$560,000	$0		
	SUBTOTAL - FIRE PROJECTS		**$3,072,000**	**$3,072,000**	**$12,000**		
	GRAND TOTAL		**$113,008,898**	**$102,433,898**	**$11,175,442**		

Exhibit 1-3

CITY OF SAN DIEGO
FACILITIES FINANCING PROGRAM

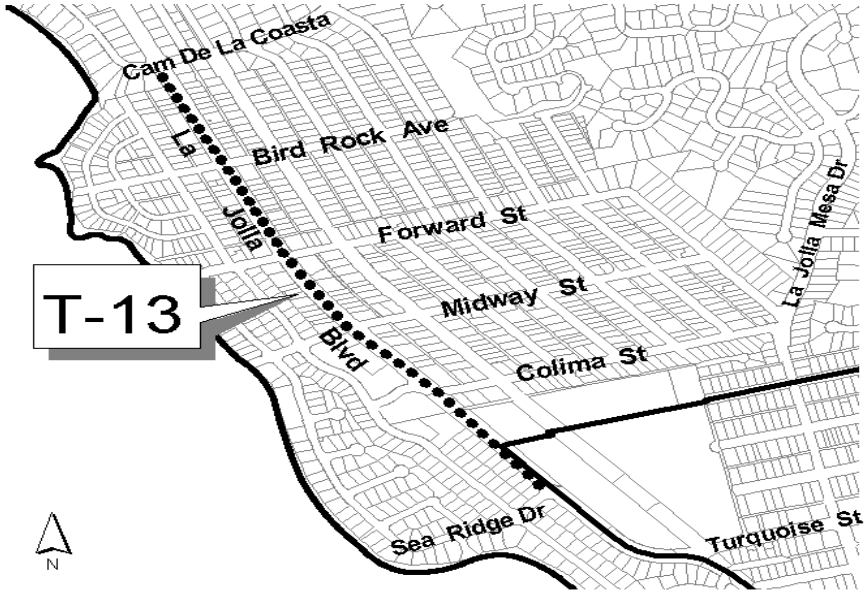
PROJECT: T13
COUNCIL DISTRICT: 1&2
COMMUNITY: La Jolla

TITLE: **BIRD ROCK COASTAL TRAFFIC FLOW IMPROVEMENTS**

DEPARTMENT: ENGINEERING AND CAPITAL PROJECTS

FUNDING:	SOURCE	EXPEN/ENCUM	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
250,000	DIF		250,000						
60,000	CMPR		60,000						
3,482,000	UNIDENTIFIED								
3,792,000	**TOTAL**	0	310,000	0	0	0	0	0	0
L=Land Acquisition		P=Preliminary Design		D=Design		C=Construction		R=Reimbursement	F=Furnishings

DESCRIPTION: THIS PROJECT IS A COMPREHENSIVE PLAN WHICH INCLUDES TRAFFIC CALMING MEASURES TO REDUCE SPEED, IMPROVE SAFETY AND WALKABILITY ON LA JOLLA BLVD. THE PROJECT INCLUDES 5 MODERN ROUNDABOUTS ON LA JOLLA BLVD. AND 3 MINI ROUNDABOUTS ON CONNECTING RESIDENTIAL STREETS. LA JOLLA BLVD WILL BE REDUCED FROM 4 LANES TO 2 LANES. THE PLAN ALSO INCLUDES 20 ADDITIONAL TRAFFIC CALMING MEASURES ON CONNECTING RESIDENTIAL STREETS.



JUSTIFICATION: THIS PROJECT WILL REDUCE TRAFFIC SPEED, IMPROVE TRAFFIC FLOW AND SAFETY ON LA JOLLA BLVD. THIS PROJECT REDUCES SPEED AND MINIMIZES CUT-THROUGH TRAFFIC ON SURROUNDING AREA STREETS.

SCHEDULE: DESIGN AND CONSTRUCTION WILL BE SCHEDULED IN FY2004 AND CONTINUE IN FY2005.

CIP NO: 52-717.0

Exhibit 2-1

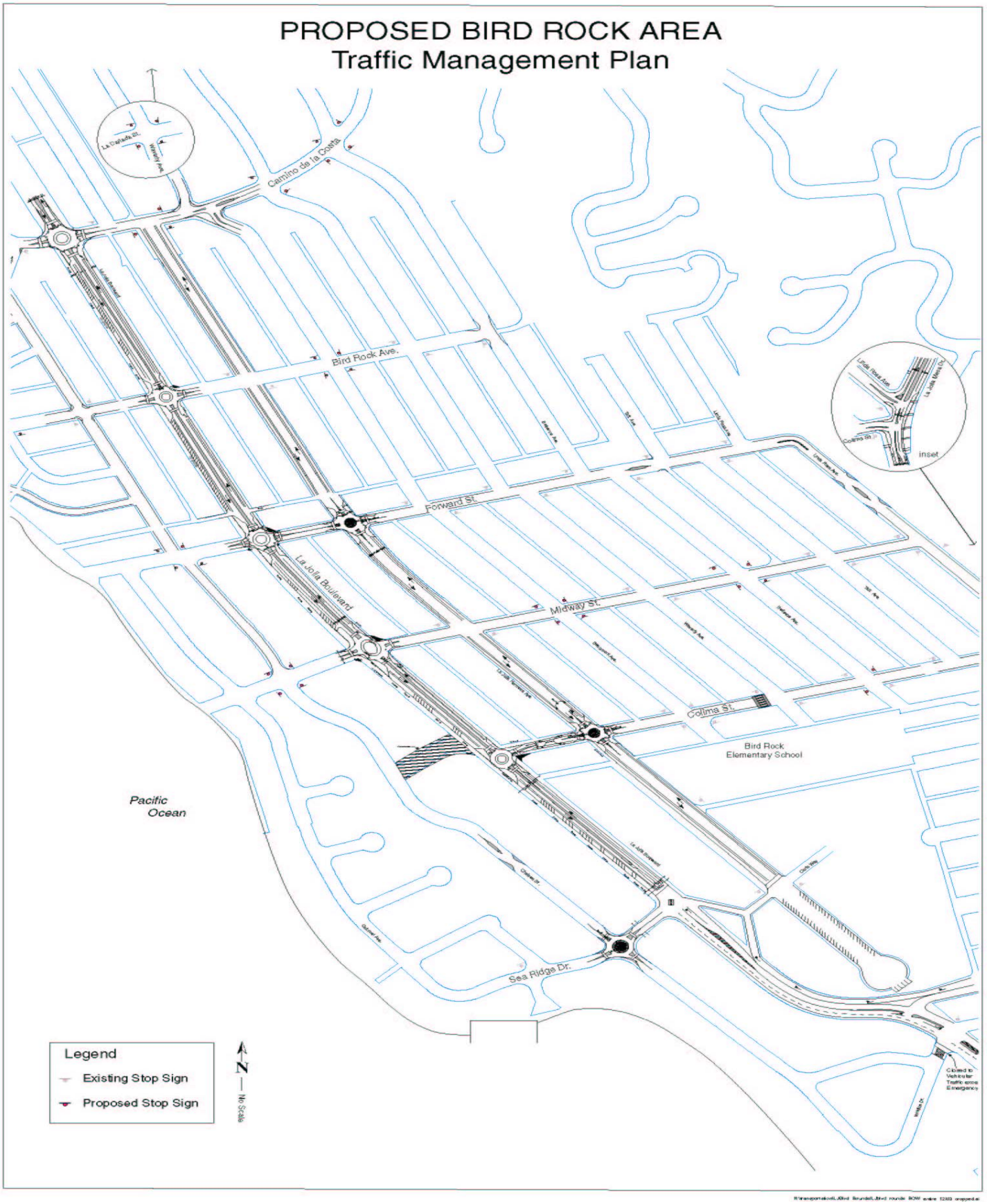

PROPOSED BIRD ROCK AREA
Traffic Management Plan
La Canada St.
Whelan Ave.
Camino de la Costa
Bird Rock Ave.
Forward St.
La Jolla Boulevard
Midway St.
Colima St.
Bird Rock
Elementary School
Pacific
Ocean
Sea Ridge Dr.
inset
Legend
Existing Stop Sign
Proposed Stop Sign
N
No Scale

Exhibit 2-2

Proposed Bird Rock Area Traffic Management Plan

1. Add narrowing stripes on Forward, Midway, Colima Streets, between. La Jolla Blvd. & Linda Rosa Ave.; Remove double yellow line.
2. Add narrowing stripes on Chelsea Ave. between Midway St. & Dolphin St.
3. Re-stripe La Jolla Hermosa Ave., between Carla Way & Camino de la Costa for bike lanes.
4. Re-stripe Linda Rosa Ave. between Forward St. & La Jolla Mesa Dr.
5. Add "B" Bar Raised Pavement Marking at the intersection of Linda Rosa Ave. /Forward St.
6. Add narrowing lanes and other traffic calming features on Dolphin St.
7. Install raised/enhanced pedestrian crosswalk(speed table) at Colima St./Waverly Ave.
8. Construct a Mini-roundabout at Chelsea St./Sea Ridge Dr.
9. Construct a Mini-roundabout at Colima St./La Jolla Hermosa Ave.
10. Construct a Mini-roundabout at Forward St./La Jolla Hermosa Ave.
11. Construct bulbouts at Bird Rock Ave./Chelsea St.
12. Construct a short median & bulbouts on Chelsea St./Camino de la Costa.
13. Construct a short median on Chelsea Ave. near Sea Ridge Dr.
14. Install additional STOP signs as necessary to augment plan (see map for locations).
15. Construct a short median on Forward St. between Taft & Bellevue Avenues.
16. Construct a short median with bulbouts on Linda Rosa Ave. (precise location to be determined).
17. Construct a modified "T" intersection with bulbouts at Bellevue/Bird Rock Avenues.
18. Construct medians and bulbouts at Camino de la Costa/Beaumont Ave.
19. Reconstruct the intersection of La Jolla Mesa Drive, Colima St., and Linda Rosa Ave.
20. Close Wrelton Drive at La Jolla Blvd. to vehicular traffic except for emergency vehicles & bicycles.
21. Construct a Modern Roundabout at La Jolla Blvd./Midway St.*
22. Construct a Modern Roundabout at La Jolla Blvd./Colima St.*
23. Construct a Modern Roundabout at La Jolla Blvd./Forward St.
24. Construct a Modern Roundabout at La Jolla Blvd./Bird Rock Ave.
25. Construct a Modern Roundabout at La Jolla Blvd./Camino de la Costa.
26. Reconfigure La Jolla Blvd., between Camino de la Costa and Colima St. to have diagonal parking on the west side; parallel parking on the east side; one traffic lane in each direction; and a landscaped center median.

* These roundabouts are conditions of development for the Seahaus Condominium project which was approved by the Council on June 25, 2002.

Roundabout Description and Benefits

Description:

A roundabout is a one-way, circular intersection without a traffic signal, in which traffic flows around a center island. Modern roundabouts have the following common features:

- Yield-at-entry – Traffic entering the circle yields to traffic already in the circle
- Traffic Deflection – Pavement markings and raised islands direct traffic into one-way counterclockwise flow
- Geometric Curvature – The radius of the circular road and the angles of entry can be designed to slow the speed of vehicles

Benefits:

According to the Federal Highway Administration, roundabouts provide:

Enhanced Safety
- Up to 90% reduction in fatalities
- 76% reduction in injury crashes
- 30-40% reduction in pedestrian crashes
- 75% fewer conflict points than four-way intersections
- Drivers have more time to judge and react to other cars or pedestrians
- Advantageous to older and novice drivers
- Reduces the severity of crashes
- Keeps pedestrians safer

Efficient Traffic Flow
- 30-50% increase in traffic capacity

Reduction in Pollution and Fuel Use
- Improved Traffic flow for intersection that handle a high number of left turns
- Reduced need for storage lanes

Money Saved
- No signal equipment to install and repair
- Savings estimated at an average of $5,000 per year in electricity and maintenance costs
- Service life of a roundabout is 25 years (vs. the 10-year service life of signal equipment)

Community Benefits
- Traffic calming
- Aesthetic landscaping

Interim Project

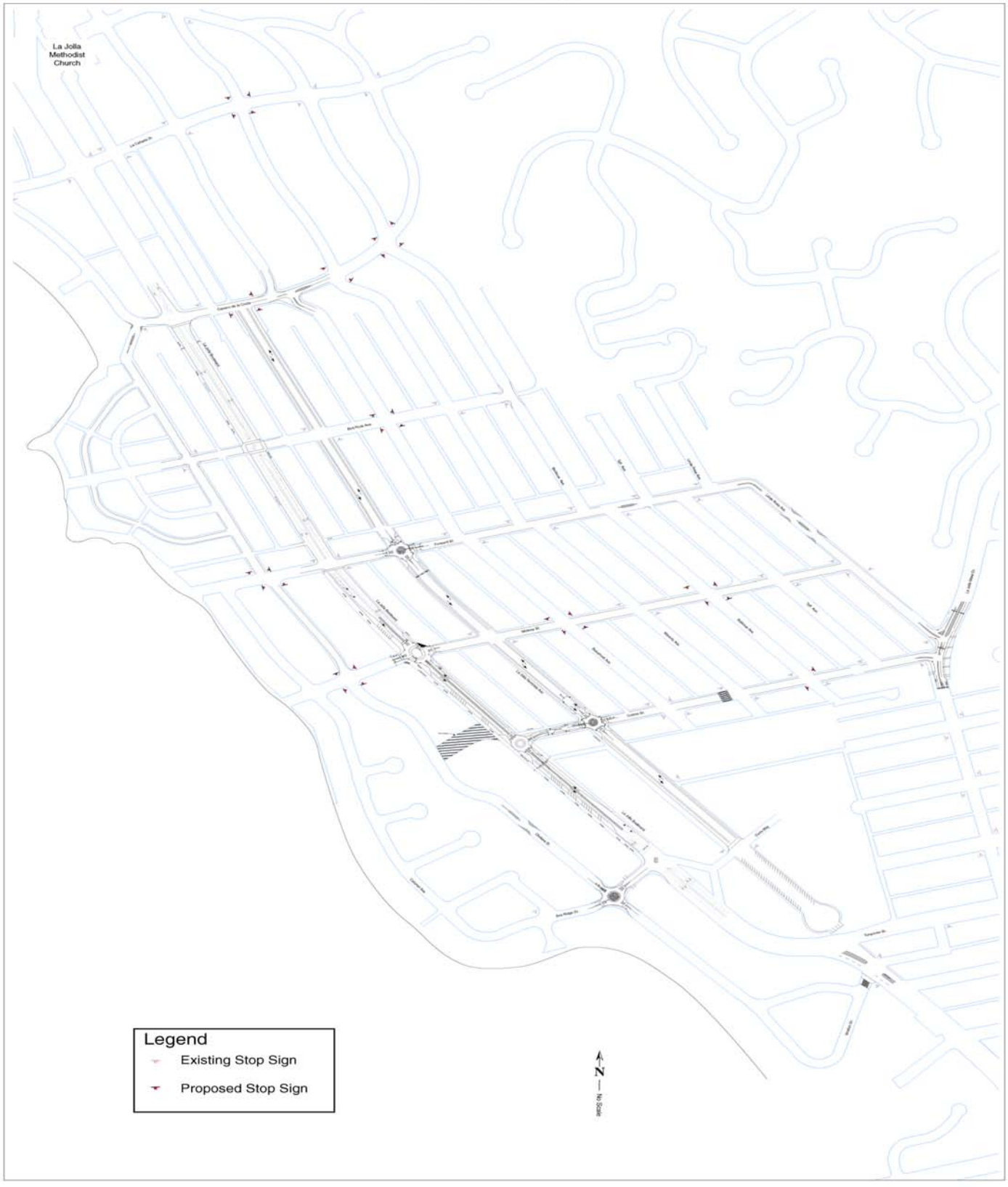
If the two roundabouts that are required of the Seahaus condominium developer at Colima Street and at Midway Street are constructed before the other three roundabouts at Forward Street, Bird Rock Avenue, and Camino de la Costa, an interim design (see Exhibit 4-1) would be implemented until the other three roundabouts are constructed.

The interim design includes transition lanes from the two southbound traffic lanes (departing from the all-way stop at the La Jolla Boulevard/Forward Street), and the two northbound traffic lanes (departing from the La Jolla Boulevard/Sea Ridge Drive), to the one lane approaching the Midway and the Colima roundabouts, respectively. For the transition areas, the upstream all-way stop sign (at Forward Street), and the traffic signal at Sea Ridge Drive would function similar to a ramp meter and would release the traffic either one vehicle at a time (at Forward Street), or few vehicles at a time (at Sea Ridge Drive). The metering effect would make the formation of a long queue approaching the roundabouts unlikely. Transportation Planning staff has conducted analysis that shows long vehicle back ups will not occur as a result of the implementation of the two roundabouts that are required of the condominium developer prior to implementation of the other three roundabouts.

In case the roundabouts that are required of the developer are constructed before the three smaller roundabouts at La Jolla Hermosa/Colima, La Jolla Hermosa/Forward, and Chelsea/Sea Ridge are implemented, then stop signs will be installed at these intersections during the interim period.

Exhibit 4-1

BIRD ROCK AREA
Traffic Management Plan
(Interim Project)



Disability Access Features

The Concern

Pedestrians who are blind use auditory cues to help cross at conventional intersections. For example, at an intersection that is controlled by a traffic signal or a stop sign, pedestrians who are blind can listen to the traffic and when the noise from the leg of the intersection they want to cross is stopped, they know they can cross at that time. At uncontrolled intersections, which by far make up most of the intersections in the city, their auditory sense is not very helpful and these individuals would need to rely on other means to cross a street. At modern roundabouts, since traffic circulates around, it becomes difficult to listen in and determine the direction of traffic. For this reason, the design of the proposed roundabouts have been modified to assist pedestrians who are blind in their crossing.

Why Roundabouts Are Needed

Roundabouts constitute an integral part of the comprehensive Traffic Management Plan in Bird Rock. Roundabouts increase intersection capacity by as much as 50%. They are needed to accommodate the traffic volume on La Jolla Boulevard while reducing the pavement widths and number of lanes from two to a single lane in each direction. Currently on La Jolla Boulevard, pedestrians have 68 feet of pavement to cross. With implementation of roundabouts, all pedestrians, including people who are blind, would cross only one lane or 14 feet of pavement at a time (one lane in each direction with 10 feet of median that serves as pedestrian refuge area). This would substantially reduce pedestrians exposure to traffic. The reduction in number of traffic lanes allows the placement of diagonal parking along the west side of La Jolla Boulevard, and provides opportunities for median landscaping and beautification. Both features are important for business vitality.

In addition, roundabouts, by design, reduce traffic speed to about 25 MPH, as compared to the existing 42 MPH, which is in the 85 percentile of speed on La Jolla Boulevard. The reduced speed will provide for a much safer street for vehicles and all pedestrians.

Design Modifications

The roundabout design has been modified to assist pedestrians who are blind to cross the area intersections. These modifications are culmination of the effort of a joint staff-SCRAB (Subcommittee for the Removal of Access Barriers) that was formed at SCRAB's June 2003 meeting. The sub-group included staff members from Engineering and Capital Projects, Transportation Planning, Disability Services, and members of the SCRAB committee. The recommendations are listed below in a summary of the design modifications requested by SCRAB committee representatives and Disability Services staff. Although the full SCRAB committee did not endorse the implementation of the roundabouts, Engineering and Planning staffs believe that the design modifications listed below, do assist pedestrians who are blind, in their street crossing at the proposed roundabouts and substantially improve safety.

Proposed Modifications to make Roundabouts Accessible to Pedestrians who are Blind (see Exhibit 5-1):

1. Rumble strips at exit and tangential approaches to crosswalks.
2. Textured medians or detectable warnings at each crosswalk's beginning and ending point and end of median.
3. Ensure no blockage of line of sight to crosswalk. Low profile landscaping to be no more than 2 feet to allow wheelchair riders and children to be visible to approaching motorists.
4. Guide strips within crosswalks to keep pedestrians from veering off, or textured crosswalks.
5. Bar tiles across sidewalks.
6. YIELD TO PEDESTRIAN signs.
7. In-pavement flashers with automatic activation (microwave/infra-red), instead of sign-mounted with infra-red/microwave detection.

The above pedestrian features, or similar measures, will be installed to the maximum extent practical. A survey of twelve jurisdictions across the country revealed that the proposed roundabout design modifications by the City of San Diego are much more comprehensive and costlier than all surveyed (see Exhibit 5-2).

Exhibit 5-1

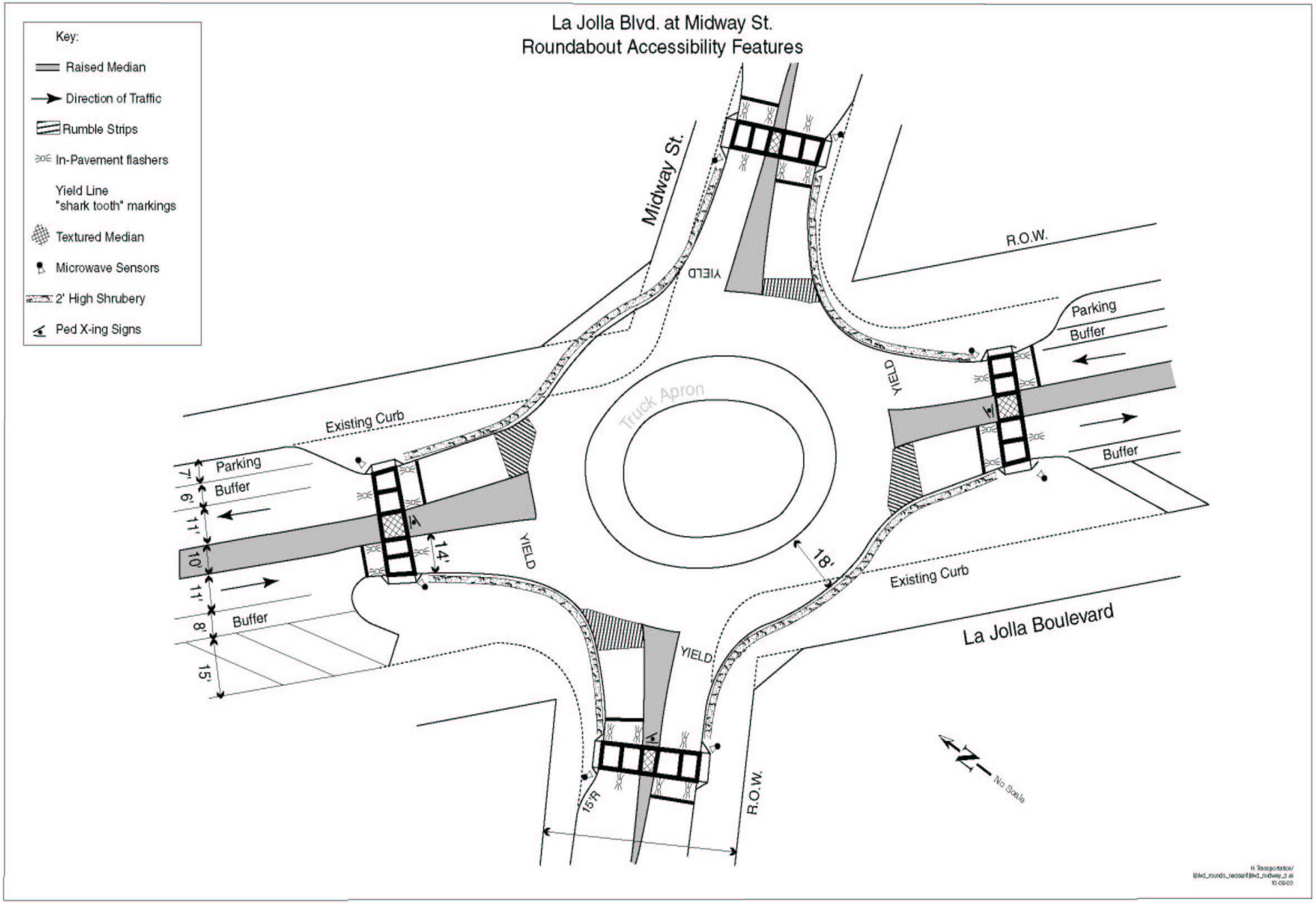

La Jolla Blvd. at Midway St.
Roundabout Accessibility Features
Key:
Raised Median
Direction of Traffic
Rumble Strips
In-Pavement flashers
Yield Line
"shark tooth" markings
Textured Median
Microwave Sensors
2' High Shrubery
Ped X-ing Signs
Midway St.
R.O.W.
YIELD
Parking
Buffer
Existing Curb
Truck Apron
7'
6'
11'
10'
11'
8'
15'
14'
18'
15'R
La Jolla Boulevard
No Scale

Exhibit 5-2

Treatments at Roundabouts for Aiding Pedestrians Who Are Blind

Jurisdiction	Treatments
State of Vermont	The sloped area on the roundabout ramping from the sidewalk to the roadway surface is scarified concrete to provide a sensory difference.
City of Clear Water, Florida	The Clearwater roundabout has audible pedestrian signals at the major pedestrian crossings (set far from roundabout). We have as many as 6,000 pedestrians a day during spring break.
City of Fort Collins, Colorado	The City of Fort Collins has not adopted any features to roundabout design, other than truncated domes at the pedestrian ramps, for handicapped individuals.
City of Olathe, Kansas	The City of Olathe currently does not make any special provision for the visually impaired. We have, however, been working with the blind community to improve the design and to better understand the challenges they face. At this time, no special features have been identified.
City of Bend, Oregon	None
Brown County, Wisconsin	Brown County has discussed the need to incorporate these features, but they have not been installed at any of the roundabouts in the county.
MD State Highway Administration	alternative routes (w/ audible signals) and 'truncated dome brick pavers' and bollards around the perimeter of the roundabout that leads to each crossing
City of Santa Monica, California	The City of Santa Monica has no plan to retrofit the one modern roundabout in their jurisdiction.
Plymouth, New Hampshire *(Perkins Eastman Architects)*	1. Straight pedestrian crossings across the splitter island 2. Walkways around the roundabouts, connecting to the crossings and adjacent sidewalks with a hard edge on one side to guide the cane users. 3. Detectable warnings at the crossings.
Rochester, New York *(Perkins Eastman Architects)*	1. Straight pedestrian crossings across the splitter island 2. Walkways around the roundabouts, connecting to the crossings and adjacent sidewalks with a hard edge on one side to guide the cane users. 3. Detectable warnings at the crossings.
Anchorage, Alaska *(Perkins Eastman Architects)*	1. Straight pedestrian crossings across the splitter island 2. Walkways around the roundabouts, connecting to the crossings and adjacent sidewalks with a hard edge on one side to guide the cane users. 3. Detectable warnings at the crossings.
Anchorage, Alaska *(Perkins Eastman Architects)*	1. Straight pedestrian crossings across the splitter island 2. Walkways around the roundabouts, connecting to the crossings and adjacent sidewalks with a hard edge on one side to guide the cane users. 3. Detectable warnings at the crossings.